

Application No.: 10/759497

Case No.: 59495US002

**Amendments to the Specification:**

Please amend the specification as follows:

On page 4, please delete the paragraph that starts on line 11 with the words "A component" and ends on line 26 with the word "entirety" and replace it with the following amended paragraph:

A component of the elastomeric copolymer may generally include an effective amount of cure site moieties derived from one or more compounds of the formula: a)  $CX_2=CX(Z)$ , wherein: (i) X each is independently H or F; and (ii) Z is Br, I, Cl or  $R_2U$  wherein  $U=Br, I, Cl$ , or  $CN$  and  $R_2$ =a perfluorinated divalent linking group optionally containing O atoms; or (b)  $Y(CF_2)_qY$ , wherein: (i) Y is Br or I or Cl and (ii)  $q=1-6$ . Preferably the cure site moieties are derived from one or more compounds selected from the group consisting of  $CF_2=CFBr$ ,  $CF_2=CHBr$ ,  $ICF_2CF_2CF_2I$ ,  $CH_2I_2$ ,  $BrCF_2CF_2Br$ ,  $CF_2=CFO(CF_2)_3-OCF_2CF_2Br$ ,  $CF_2=CFOCF_2CF_2Br$ ,  $CH_2=CHCF_2CF_2Br$  (BTFB),  $CH_2=CHCF_2CF_2I$ ,  $CF_2=CFCI$  and mixtures thereof. In a most preferred embodiment, the iodine, bromine, or chlorine are chemically bound to chain ends of the first component of the compound. Optionally, nitrile cure site moieties may also be utilized. The crosslinkable composition can further include one or more substances known to promote the formation of triazine rings by trimerization of nitriles under the influence of heat. These include organometallic compounds of arsenic, antimony, and tin described in U.S. Pat. Nos. 3,470,176, 3,546,186, and the metal oxides described in U.S. Pat. No. 3,523,118, all herein incorporated by reference in their entirety.

On page 4, please replace the paragraph that starts on line 27 with the words "The compound" and ends on page 5, line 4 with the word "invention" with the following amended paragraph:

The compound also includes a curable component that enables vulcanization of the fluoropolymer. The curable component may include curable materials, such as, for example, peroxide and one or more co-agents. Peroxide curatives include organic or inorganic peroxides. Organic peroxides are preferred, particularly those that do not decompose during dynamic mixing temperatures. Examples of non-limiting peroxides include dicumyl

Application No.: 10/759497

Case No.: 59495US002

peroxide, 2,5-dimethyl-2,5-di(~~t-butylperoxy~~)hexane di(t-butylperoxy)hexane, di-t-butyl peroxide, t-butylperoxy benzoate, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane-3 and laurel peroxide. Other suitable peroxide curatives are listed in U.S. Pat. No. 5,225,504 (Tatsu et al.). The amount of peroxide curing agent used generally will be 0.1 to 5, preferably 1 to 3 parts by weight per 100 parts of fluoropolymer. Other conventional radical initiators are suitable for use with the present invention.

On page 6, please replace the paragraph that starts on line 28 with the word "Chain" and ends on page 7, line 7 with the word "mole%" with the following amended paragraph:

Chain transfer agents may be used in the polymerization in order to control the molecular weight distribution of the resulting polymers. Examples of chain transfer agents include isopropanol; methyl ethyl ketone; ethyl acetate; diethyl malonate; isopentane; 1,3-diiodoperfluoropropane; 1,4-diiodoperfluorobutane; 1,6-diiodoperfluorohexane; 1,8-diiodoperfluorooctane; methylene iodide; trifluoromethyl iodide; perfluoro(isopropyl) iodide; and perfluoro(~~n-heptyl~~ n-heptyl) iodide. Polymerization in the presence of iodine-containing chain transfer agents may result in a polymer with one or two iodine atoms per fluoroelastomer polymer chain, bound at the chain ends (see for example U. S. Pat. No. 4,243,770 and U.S. Pat. No. 4,361,678, herein incorporated by reference in their entirety). Such polymers may have improved flow and processability compared to polymers made in the absence of a chain transfer agent. Generally, up to about 1 mole percent iodine chemically bound to fluoroelastomer chain ends will be incorporated into the polymer, preferably from 0.1-0.3 mole%.

On page 18, please replace the paragraph that starts on line 3 with the words "A compound" and ends on line 9 with the word "(TR-10)" with the following amended paragraph:

A compound is prepared, suitable for forming fluoroelastomers, having the unique features of a low glass transition temperature and desirable physical properties. The compound generally comprises an elastomeric copolymer, a curable component, and at least one mineral filler. The elastomeric copolymer includes interpolymerized monomeric units derived from vinylidene fluoride. Upon vulcanization the resulting elastomeric compound has desirable

Application No.: 10/759497

Case No.: 59495US002

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physical characteristics as indicated by the tensile strength, elongation and the retraction at lower temperatures (TR-10).